

# **Social Upgrading and Cooperative Corporate Social** Responsibility in Global Value Chains

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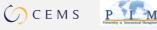
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# Social upgrading and cooperative corporate social responsibility in global value chains: the case of Fairphone in China

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**Abstract** In this article, we explore how a lead firm's strategy for corporate social responsibility influences the social upgrading of a supplier in a global value chain. Based on a single case study approach, we investigate the interaction between Dutch smartphone producer Fairphone and its Chinese supplier Guohong. On the one hand, the case illustrates how a cooperative approach to corporate social responsibility can lead to progress in suppliers' social upgrading. In particular, we highlight the role of a so-called workers' welfare fund as a mechanism not only for improving measurable labour standards but also for enabling rights. On the other hand, the case demonstrates how the limited production and technological capabilities of the suppliers, a competitive market environment and lead firms' limited strategic access to the supply chain might constrain the extent of social upgrading through a cooperative approach towards corporate social responsibility in a global value chain.

*Keywords* CHINA, CORPORATE SOCIAL RESPONSIBILITY, FAIRPHONE, GLOBAL VALUE CHAIN, GOVERNANCE, SOCIAL UPGRADING

A global value chain (GVC), in which value adding activities are highly fragmented and geographically dispersed, is an increasingly important form of industrial organization. Analysing the economic and social implications of GVC participation for suppliers in developing and emerging economies is of utmost relevance (Locke 2013; Riisgaard and Hammer 2011). Previous studies on GVCs provide a clear picture of how lead firms govern value chains (VCs) (Gereffi 1994; Gereffi et al. 2005) and how value is generated and distributed among GVC actors across developed and developing countries (Gereffi and Lee 2016; Ponte et al. 2014). We argue that GVC governance plays a pivotal role in suppliers' upgrading since lead firms can facilitate learning and knowledge-flows within VCs (Bair and Gereffi 2003; Humphrey and Schmitz 2002; Kaplinsky 2000). However, most studies on the link between the governance and the upgrading of suppliers have focused on economic upgrading or capacity building for economic growth (Cusolito et al. 2016; Taglioni and Winkler 2014), with limited consideration of a social impact.

Recent studies have paid more attention to the nexus between economic factors and social upgrading, such as workers' rights and better working conditions (Barrientos et al. 2011; Rossi 2013). To understand better the conditions under which social upgrading can be realized, it has been suggested that it is necessary to consider not only the governance within a GVC but also the governance at a local level and efforts made by non-state actors (Bair and Palpacuer 2015; Gereffi and Lee 2016). Other scholars stress the importance of multi-stakeholder processes on social upgrading (Dolan and Opondo 2005; O'Rourke 2006). The extent to which lead firms include different stakeholders, such as non-governmental organizations (NGOs) or trade unions (Croucher and Cotton 2009) in social upgrading processes will depend on the lead firm's strategic approach to corporate social responsibility (CSR). Yet, research on if and how social upgrading can be achieved in a GVC through the lead firm's CSR is still limited (Barrientos 2013; Locke et al. 2009; Lund-Thomsen and Coe 2015). The present study seeks to fill this gap.

In this article, we investigate the extent to which the lead firm's approach to CSR can foster the supplier's social upgrading in a GVC. We address this question in the context of the electronics industry, where private regulation initiatives by lead firms are largely unexplored (Wahl and Bull 2014). The electronics industry offers an appropriate setting for our analysis because of the prevalence of global outsourcing and a remarkable growth of electronics manufacturing in emerging countries, especially in China. In particular, we look at the smartphone GVC, which is highly fragmented both geographically and functionally, with substantial opportunities for participation and upgrading by suppliers located in emerging countries (Sturgeon and Kawakami 2010).

To provide rich descriptions and in-depth analysis, we apply a single case study approach (Yin 2014) that analyses the relationship between a Dutch smartphone producer, Fairphone, and its Chinese contract manufacturer, Chongqing Guohong Technology Development Company Ltd (hereafter Guohong). The case of Fairphone's CSR practices offers an interesting setting for the consideration of social upgrading. With a strong emphasis on its social impact, Fairphone has aimed to make and market 'ethically-produced' smartphones. Since its establishment, for example, the company has promoted the use of conflict-free minerals for its smartphones by developing a transparent supply chain; it has also enhanced modularity to increase the recyclability of products and their parts and it focuses on improving welfare of local workers. Thus, Fairphone's CSR strategy might constitute a pioneering attempt to foster social upgrading of suppliers in the smartphone GVC. In our case study, we thus aim to shed light on what facilitates and constrains the achievement of this goal.

The next section of this article, we explain the concept of social upgrading and outline different approaches to CSR. In the third section, we introduce the case firms and describe our methodological approach. We then present our findings and analysis of the case study of Fairphone in China, which provides the context for our discussion of potential constraints on lead a firm's promotion of social upgrading in its GVC. Finally, we conclude by suggesting future research avenues.

#### Literature review

The foremost concepts in GVC analysis are governance and upgrading (Humphrey and Schmitz 2000, 2002; Kaplinsky and Morris 2000). GVC governance is understood as 'the authority and power relationships that determine how financial, material, and human resources are allocated and flow within the chain' (Gereffi 1994: 97). Lead firms govern their GVCs by coordinating the division of labour in the given chain (Ponte et al. 2014). Gereffi et al. (2005) classify governance types in GVCs based on differences in the coordination of buyer–supplier relationships and in the level of supplier capabilities and the degree of power asymmetry between the lead firm and its suppliers, which can be significant when suppliers are from less developed countries.

This consideration of the types of GVC governance has stimulated analysis that introduces the concept of upgrading, through which suppliers from developing countries may carry out more value-adding activities to capture economic rent and thereby move up on the value chain (Gibbon 2008). Economic upgrading can take several trajectories, including product upgrading, process upgrading, functional upgrading and inter-chain upgrading (Humphrey and Schmitz 2000; Kaplinsky and Morris 2000; Ponte and Ewert 2009). Previous studies show that a lead firm's coordination and its long-term relationship with a supplier can encourage the supplier's upgrading of both product and process (Meyer-Stamer et al. 2004; Ponte et al. 2014). However, it has been pointed out that economic upgrading can be associated with both positive and negative social impacts on its local workers (Nadvi 2004; Pipkin 2011; Rossi 2013). Hence, there is a need to integrate social impacts of GVC participation into VC analysis (Bolwig et al. 2010).

#### Issues of social upgrading in GVC

Social upgrading can be defined as 'the process of improvement in the rights and entitlements of workers as social actors, which enhances the quality of their employment' (Barrientos et al. 2011: 324). This includes not only economic upgrading but also the improvement of social status, such as employment, social protection, workers' rights and social dialogue (ILO 2001). More recent GVC analysis integrates the vertical and horizontal interrelationships in value chains to address the effects of GVCs on issues such as poverty and environmental sustainability and calls for a contextual analysis of local social process (Bolwig et al. 2010). This emerging line of investigation is a significant development in GVC research, because the traditional tenet of GVC tended to pay limited attention to local labour conditions and institutions in a given society (Selwyn 2013).

The concept of social upgrading mainly consists of two major aspects – enabling rights and measurable standards at workplaces (Barrientos et al. 2011; Coe and Hess 2013; Rossi 2013). The concept of enabling rights includes the manifestation of workers' rights and entitlements as social actors, highlighting more balanced power relations between workers and management (Amengual 2010; Locke et al. 2009). The concept also encompasses such relational factors as freedom of association, collective bargaining, and non-discrimination (Barrientos et al. 2011; Rossi 2013). Measurable standards comprise more easily quantifiable elements such as wage level, physical well-being, working hours, benefits and employment/income security, all of which can be observed through auditing and factory visits. Scholars have largely focused on measurable standards. However, as Barrientos et al. (2011) point out, measurable standards are often the outcomes of complex enabling processes. Thus, enabling rights and measurable standards together constitute social upgrading.

It is often assumed that economic upgrading would automatically lead to social upgrading through the improvement of such measurable standards as higher wages (Barrientos et al. 2011; Milberg and Winker 2011). Yet, this view is challenged by, among others, Pipkin (2011), who demonstrates divergent impacts of economic upgrading on social upgrading in the apparel industries in Guatemala and Colombia; and Rossi (2013), who shows variations of employment security and income gains, depending on where a supplier is positioned within the GVC, as well as on whether the workers are on regular or irregular contracts.

Therefore, it is possible to challenge the implicit assumption that economic upgrading automatically leads to social upgrading (Selwyn 2013), which might apply especially to improvements in enabling rights. Prevailing power asymmetries between the lead firm and its suppliers in a GVC might affect progress in this area (Barrientos et al. 2012; Lee and Gereffi 2015). To address this relational factor, Gereffi and Lee (2016) propose considering horizontal governance performed by different types of stakeholders, for example, local civil society, NGOs and labour unions. This perspective links the concept of social upgrading in GVCs with elements associated with CSR.

#### Social upgrading and CSR practices

CSR generally refers to 'the responsibility of enterprises for their impacts on society' (European Commission 2011: 6), so encompasses a wide range of an organizations' social, environmental, ethical, and human rights efforts (Gereffi and Lee 2016). Because of its multifaceted nature, CSR is no longer limited to lead firms but is expected to cover the whole supply chain (Maloni and Brown 2006; Pedersen and Andersen 2006). Today, corporations operate in large networks that include different types of interrelated stakeholders across developed and developing countries (Jamali

2008). Given this, Sheehy (2015: 625) has redefined CSR as 'international private business self-regulation'.

In fact, social upgrading is subject to a web of governmental and supra-governmental regulations. However, since the reach of such state regulation is limited in the context of complex GVC interactions (Scherer and Palazzo 2011), private regulation has emerged in the form of CSR codes and standards, which are developed and administered not only by companies but also by industry associations and NGOs (Bartley 2007; Bartley and Egels-Zandén 2015; Fransen 2012; Reinecke et al. 2012). Lead firms in GVCs have been under pressure to connect appropriately economic and social upgrading in more integrated forms (Gereffi and Lee 2016). Yet, analysis of the relationship between CSR and social upgrading in GVCs is still underdeveloped (Scherer and Palazzo 2011; Taneja et al. 2011).

The literature identifies two CSR paradigms – 'compliance-based' and 'cooperative' (Lund-Thomsen and Lindgreen 2014). Under the compliance-based paradigm, NGOs, trade unions, and the media put pressure on transnational corporations (TNCs) to adopt codes of conduct and ethical guidelines, which have to be complied with throughout the GVC at suppliers' factories and compliance is monitored by third-party entities (Lund-Thomsen and Lindgreen 2014). In practice, however, the compliancebased model of CSR has often failed to deliver the expected social and environmental standards because lead firms rarely sanction or reward suppliers for their compliance levels (Locke et al. 2009; Lund-Thomsen and Lindgreen 2014; Ruwanpura and Wrigley 2011). On the other hand, the cooperative paradigm emphasizes long-term and trust-based relationships between buyer firms and suppliers. Based on close collaboration, a lead firm of a GVC will help its suppliers improve production techniques and reorganize work processes on factory floors, thereby contributing directly to the social upgrading of suppliers (Lund-Thomsen and Coe 2015; Lund-Thomsen and Lindgreen 2014).

The cooperative CSR paradigm typically includes three main features. First, international buyer firms are required to review their purchasing policies and pay reasonable purchase prices to enable their suppliers to compensate their workers fairly (Barrientos 2013; Reinecke 2010). Second, buyer firms are expected to invest in suppliers' human resource management, which can generate opportunities for process and/or product upgrading and to provide appropriate incentives for social upgrading (Locke et al. 2009). Third, local economic and social actors should be included in the CSR monitoring process to provide independent standards set for suppliers (Lund-Thomsen and Lindgreen 2014). In this paradigm, the lead firm of a GVC is required a significant commitment to foster the social upgrading of suppliers, whereas the positive impact of multi-stakeholder processes on social upgrading is also assumed (Dolan and Opondo 2005; Fichter et al. 2011; O'Rourke 2006; Polaski 2006).

Nonetheless, like the compliance-based model, the cooperative CSR model has also raised some questions. Although the cooperative paradigm emphasizes trust-based relationships, it may not make a fundamental change in power asymmetries between the lead firm and suppliers, given the demands imposed by global competition (Barrientos 2013; Lund-Thomsen and Coe 2015; Lund-Thomsen and Lindgreen 2014).

In fact, we still have a limited understanding of how the lead firm could take a cooperative CSR approach to its supplier. To address these issues, our study explores the relationship between the lead firm's CSR activities and the social upgrading of a local supplier through the case of a smartphone GVC in China.

#### Methodology

The present study uses a single-case design (Yin 2014) to conduct an in-depth investigation of the role of CSR practice for social upgrading of suppliers in a GVC. Specifically, we analyse the relationship between Fairphone and its Chinese contract manufacturer, Guohong. The study focuses on production of Fairphone's two smartphone models - the Fairphone 1 (FP1) and its subsequent model, the Fairphone 2 (FP2). It considers different actors who played a role in the production of these models as well as in the social upgrading of Guohong. The significance of this case setting is twofold. First, FP1 and FP2 have unique characteristics in the smartphone industry in terms of Fairphone's value proposition to produce ethical smartphones. Second, the case demonstrates Fairphone's emphasis on collaboration with suppliers and its attempt to implement cooperative CSR practices. This helps is us to understand how a cooperative approach to corporate social responsibility might be associated with the progress of a supplier's social upgrading. Third, the case also demonstrates a number of factors that threaten the achievements of social upgrading, since Fairphone replaced Guohong with another contract manufacturer when starting the production of FP2.

### The case: Fairphone's GVC

Established in 2013, Fairphone is a social enterprise, headquartered in Amsterdam. The company was originally formed as a project of social movement activism in the Netherlands (Akemu et al. 2016) involving non-profit organizations such as the Waag Society, Action Aid and Schrijf-Schrijf; today, it is financed independently. It does not depend on donations or venture capital (Fairphone 2015a). Since its establishment, Fairphone has tried to configure its GVC for the production of ethical smartphones using ethically sourced materials and recyclable parts. Its GVC is characterized by sustainable R&D, responsible sourcing and social responsibility. For example, the company is dedicated to using tin and tantalum extracted in non-conflict zones, which uniquely positions Fairphone's smartphones in the market. Although it is still a small organization with approximately fifty employees, Fairphone had sold 60,000 FP1 units (at 325 euro per unit) and over FP2 17,000 units (at 525 euro per unit) worldwide by the end of 2015 (Fairphone 2015a, 2015b).

The information, communication and technology (ICT) industry consists of mainly three types of players – lead firms, contract manufacturers and platform leaders. Lead firms usually design the product, place orders with their suppliers and sell the final product to customers with their own brands. Contract manufacturers sometimes provide design activities as well as manufacturing services. Platform leaders provide technology platforms used in products by other companies (WTO and OECD 2013).

Fairphone has acted as the lead firm since the product launch of FP1. In contrast to other lead firms in the industry, however, Fairphone did not design its first model, FP1. Instead, Fairphone chose a Chinese supplier, Guohong, both to design the product and to serve as the sole contract manufacturer.

Guohong opened a factory in Chongqing in 2006. The factory's approximately 700 employees are divided into production units that serve a diverse and mostly domestic production portfolio. Its smartphone unit had around 200 factory workers at the time of this study. Since FP1 was Fairphone's first attempt in the smartphone business and Fairphone had only limited knowledge and experience in a smartphone manufacturing, Fairphone adapted a basic product from Guohong's portfolio. Using its existing chain of sub-suppliers, Guohong performed most value-chain activities for this product, including design, assembly, testing, and packaging, on behalf of Fairphone. Throughout the FP1 production period, Fairphone maintained a close relationship with Guohong, not only in the production but also in social aspects through the implementation of a hands-on welfare programme, the 'Worker Welfare Fund (WWF),' at Guohong's factory. This was in line with Fairphone's business philosophy, 'to maximise [Fairphone's] social impact' (Fairphone 2016), practising its keenness to support the supplier's social upgrading.

Yet, when Fairphone started the development of the new model FP2, it entailed a major shift in its GVC and operations. Fairphone decided to design FP2 in-house because it wanted to track down better-processed minerals and components (Fairphone 2015a). It also completely replaced Guohong with another supplier as the contract manufacturer. The Fairphone case allows us to explore how Fairphone practised cooperative CSR for Guohong's social upgrading and what factors eventually led it to decide to change its contract manufacturer, despite its considerable investment in that partner's social upgrading.

### Data sources

The empirical analysis is built on a series of semi-structured interviews with eight individuals, including four respondents from Fairphone and another four from organizations in Fairphone's GVC. Since our study focused on the lead firm's CSR strategy for its GVC and the organizational-level impact of that strategy on a supplier firm's social upgrading, we sought to interview senior personnel. We based our selection of interviewees on their familiarity with Fairphone's smartphone production in China as well as its CSR practices. At the outset, we contacted key people at Fairphone, who knew about issues related to CSR/social upgrading in GVC. Since data triangulation is necessary to increase the validity of the case study, we subsequently contacted members of external entities: (a) Guohong, which was the contract supplier for FP1; (b) TAOS, a Chinese social assessment agency; (c) Concentric Consult, which provides technical advisory support; and (d) AT&S, a global platform leader of printed circuit boards (PCBs), with which Fairphone started a business relationship for the production of FP2. Table 1 summarises the profiles of interviewees.

| Organization          | Type of business  | Position held                       | Location                      | Interviewee's main role   |
|-----------------------|---|-------------------------------------|-------------------------------|---|
| Fairphone             | Dutch social enterprise, which<br>aims to market ethical smartphones              | Founder, CEO                        | Amsterdam,<br>The Netherlands | Responsible for Fairphone's management decisions, including strategy setting and GVC management.  |
|                       |   | Impact and Develop-<br>ment Manager | Amsterdam,<br>The Netherlands | Responsible for various types of CSR projects involved in Fairphone's suppliers in China and other developing countries.                      |
|                       |   | Project Coordinator                 | Amsterdam,<br>The Netherlands | In charge of labour standards in Fairphone's GVC, especially working conditions and workers' representation.                                  |
|                       |   | Project Manager                     | Chongqing, China              | Manages the production schedule, monitors production process and inspects product quality.  |
| Guohong               | Chinse mobile handset manufac-<br>turer; Fairphone's supplier for FP1             | Project Manager                     | Chongqing, China              | Coordinates Fairphone's production planning and assembly;<br>Responsible for the implementation of WWF at Guohong.                            |
| TAOS                  | A grassroots network specializing<br>in CSR and social compliance and<br>training | Executive Director                  | Shenzhen, China               | Responsible for providing Fairphone's suppliers with train-<br>ing and on-site support to improve their labour conditions.                    |
| Concentric<br>Consult | Hong Kong-based consulting firm<br>specializing in consumer electronics           | Founder and Manager                 | Hong Kong, China              | Provides global clients with advice and solutions to improve<br>client-specific issues, supply chain management and<br>business optimization. |
| AT&S                  | Austria-based global supplier of high-end printed circuit boards                  | Senior Account<br>Engineer          | Leoben, Austria               | In charge of the joint product design and development projects of FP2 with Fairphone and its new supplier, Hi-P.                              |

Table 1: List of interviewees

The interviewees were identified and approached using a snowball sampling technique, which consisted of asking each preceding interviewee to introduce the researchers to key people regarding the subject matter. All interviews were conducted in English. To verify the details and accuracy of information, we cross-checked the interviews with secondary data, such as corporate reports, internal official documents the interviewees provided, and third-party media articles and newsletters. Furthermore, we assessed Fairphone's documentary video clips, which include testimonials by factory workers at Guohong. Since WWF involved workers on the shop-floor, these videos provided insights into the views of blue-colour workers.

#### Data collection

We conducted interviews between August and December 2015, shortly after Fairphone ended its business tie with Guohong. Thus, Fairphone's CSR practices and the changes made to its value chain were still fresh in the respondents' memories. The interviews with personnel at Fairphone were carried out face-to-face in Amsterdam, while those with the other interviewees in China were made via Skype. The interviews lasted at least 30 minutes, but most took much longer, and some exceeded 150 minutes. All the interviews were semi-structured, drawn upon the conceptual frameworks concerning GVC, such as the inter-organizational relationships in Fairphone's GVC, Fairphone's CSR activities to achieve social upgrading, and the nexus between these factors and suppliers' capabilities. To ensure the replicability of observations and an accurate interpretation of the interviewees' accounts in this qualitative case study (Denzin and Lincoln 1994), an outline of the questions and a glossary of the concepts and terms we intended to use, together with their meanings, were clarified in a written form and sent to each respondent before the interview.

Within the semi-structured framework, we endeavoured to encourage the interviewees to include as much detail as possible in their descriptions of the actual situations and their explanations of the chain of causation that shaped the changes in Fairphone's relationship with Guohong. During each interview, we took notes as we communicated, and also recorded the interviews when it was agreed. Moreover, we followed up by sending the respondents a summary of the interview, inviting clarification, and seeking supplemental information when needed. The transcripts of these interviews ran to 141 pages in total. Our analysis in the following sections is drawn from these rich descriptions as well as from the secondary sources mentioned above.

#### Findings

#### Cooperative CSR for social upgrading

Fairphone's purchasing policy differs markedly from that of the original equipment manufacturers (OEMs) in the smartphone industry. It did its best to pay suppliers reasonable prices rather than squeeze them for the cheapest deal and, where possible, submitted well-scheduled, regular orders to stabilize employment at the suppliers' factories. Fairphone included unique requirements for its smartphones, such as the use of conflict-free minerals as raw materials and advanced modularity to achieve a higher reparability. When making sourcing decisions, it placed equal importance on technological requirements, pricing limits and the social impact of its production.

Fairphone interacted closely with Guohong in its everyday operations to ensure conformity with its ethical business model and successfully negotiated the introduction of a unique instrument, the 'Worker Welfare Fund (WWF)', to facilitate important features of its CSR strategy. Fairphone and Guohong jointly financed the fund and each party invested US\$ 2.50 per phone. During the FP1 period, the WWF raised a total of US\$ 300,000 (as of 2015), which was used to improve workers' welfare at Guohong. For example, it addressed working conditions and wages at Guohong's factory and provided its managers with training and skill development. In the process of implementing WWF at Guohong and monitoring the progress, Fairphone hired two third parties for external advisory support – a Chinese CSR consulting network, TAOS, and a Hong Kong-based consulting firm, Concentric Consult. Fairphone's new relationship with these external entities enabled the lead firm to assume more social responsibility for value chain activities as its smartphone business developed.

Following the conceptual framework introduced in the literature review above, we first illustrate how Fairphone exercised enabling rights and measurable standards at Guohong, and then discuss the extent of the effectiveness of the cooperative CSR for social upgrading in a GVC.

#### Enabling rights

In China, the contract manufacturers are legally required to have union representation. According to Fairphone's project manager who was based at Guohong's factory, Guohong had complied with this law before Fairphone implemented WWF, but the system did not function well. One of the worker representatives told him that 'before [WWF], we always discussed problems among ourselves and never spoke to the management about them' (Fairphone 2014); thus, when WWF was implemented, it was well received by workers at Guohong as a 'good platform'. Moreover, to enhance the enabling rights of workers at Guohong, Fairphone collaborated with TAOS for social assessment. As the executive director of TAOS explained:

We [TAOS] provided training to [Guohong's] management once or twice a month. For instance, in-class training about international labour standards, labour laws basically, threats to labour conditions, then also how to comply with such standards. That kind of in-class training increases awareness and spreads the knowledge [in the supplier's workplace].

In the Chinese manufacturing industry, workers are normally supposed to communicate problems directly to their immediate supervisors. Therefore, it is important that managers understand labour standards, and also that they contribute to an atmosphere in which workers feel comfortable about raising labour issues. Fairphone created an additional communication channel via worker representatives in the WWF. These elected worker representatives managed the WWF programme and kept a close dialogue with Guohong's senior management as well as with TAOS and Fairphone. Factory workers were now able to report their grievances through the elected representatives, TAOS and even through Fairphone's on-site project manager. TAOS's executive director confirms that WWF improved communication between workers and management. 'Due to WWF, Guohong's management got to know the wishes of the workers and could forward them to the union leaders, which made unions much more effective. Within the traditional union structure, workers were not able to address their problems to the labour unions. Unions rather covered general issues.'

It should also be noted that WWF was not only a social welfare programme but essentially a monetary incentive. The on-site project manager explained:

The goal of having WWF is to provide a monetary incentive, [we were] hoping that workers would engage more actively in this type of representative system and were thinking that there should be a monetary incentive in wanting to voice their opinions more about overall issues concerning the factory. I think we successfully implemented the Workers Welfare Fund representative system in Guohong.

Worker representatives at Guohong decided to spend more than half the workers welfare fund on direct bonus pay-outs. The executive director of TAOS commented that the WWF stimulated worker interest in participation. In turn, the increased participation facilitated collective bargaining, involvement in the factory's decision making and better working conditions – in this case payment.

Another of Fairphone's notable cooperative CSR practices is its equal treatment of workers at the supplier's factory. In Chinese manufacturing, there are two types of employees - regular and irregular (also called agency) workers. According to Chinese employment law, the proportion of agency workers at any place of work must be less than 10 per cent of the total. Although the law requires employers to provide the same employment rights to regular and irregular workers (Out-Law 2015), agency workers often receive lower wages and lower contributions to social insurance. Equality between regular and irregular workers was not so much an issue at Guohong because nearly 100 per cent of its employees are regular workers. What is noteworthy is that, as a principle, Fairphone required Guohong to provide the same social improvement and financial bonuses to all workers at Guohong's factory, irrespective of whether they worked on the Fairphone production. Hence, the WWF-financed bonuses mentioned above were paid to all 700 Guohong employees and not just to the 200 who worked on the FP1. It is remarkable that Fairphone pursued a non-discriminatory principle in such a manner. Fairphone's impact and development manager explained its stance:

All factory workers must profit from social improvements. That was something that we made very clear from the beginning. ... Because who do you choose to work on the Fairphone? ... You cannot favour 80 workers out of 200 for three weeks, so we try to spread the benefits of the WWF across the whole company.

By doing so, Fairphone prevented discrimination among employees. This evidence also points to the lead firm's effort to improve other elements of social upgrading linked to measurable standards.

#### Measurable standards

Guohong had experienced persistent problems that were closely linked to measurable standards like working conditions, wage levels and overtime. According to TAOS's executive director, Guohong's working conditions were quite problematic before Fairphone introduced the WWF: 'Guohong did not have international clients and had not undergone social audits before Fairphone's collaboration. Guohong follows the local law, but it was not at an international level regarding labour standards.' From the outset, Fairphone addressed issues related to health and safety. Its on-site project manager, who originally comes from Taiwan and speaks Chinese, supported the monitoring process locally. As she commented, 'because I am here, I can better understand its [Guohong's] needs and feelings, especially in terms of reducing overtime, giving workers better pay, and getting a better overall picture of the factory.'

TAOS also carried out regular social assessments and checked health and safety standards at Guohong's factory. It was responsible for reporting to Fairphone as well as to Guohong's factory management and suggested possible solutions. For example, TAOS helped Guohong set up a health and safety committee to monitor conditions on a daily basis. As a result of this continuous monitoring, fire safety measures were updated, chemicals properly labelled, lighting in the production area improved and policies on child labour and juvenile protection codified.

Furthermore, Fairphone also aimed to educate Guohong's management about CSR. The impact and development manager of Fairphone clarified this as follows:

In terms of working conditions and wages and worker welfare, we do social assessment, which is more targeted on the management [of Guohong]. So, what we do, together with TAOS, is that we visit the manufacturer; they [TAOS] check for health and safety; they check for child labour; they check for things that management should supply. It is not only this checklist, but it is also this training programme that TAOS goes back to help the management with – the improvement plan.

Moreover, Fairphone was able to influence the income of workers indirectly through a distribution of WWF based on independent decisions made by workers representatives. The executive director of TAOS commented on this matter

so that the fund [Fairphone's WWF] actually generated a higher income for the workers [by using it to pay one-off bonuses]. But the workers always voted for

bonus. ... The workers also could have voted for a karaoke set, or a pool table, or whatever they think is necessary. In this case, they mostly voted for a bonus pay-out, so in that sense we also increased the take-home wage of the workers, but they could also have chosen something else.

According to Fairphone's on-site project manager at Guohong, the workers at Guohong typically earned between 2800 and 3000 yuan a month in basic wage, overtime pay and other benefits. According to a worker representative at Guohong, this wage level was slightly lower than average for larger manufacturers or foreign firms operating in China (Fairphone 2015a). Nonetheless, Guohong's wages were well above the legal minimum wage.<sup>1</sup> However, given its value proposition, Fairphone wanted to ensure that suppliers paid their workers *fair* wages, that is living wages that can cover their basic needs adequately. Eventually, Fairphone realized that a further wage increase would be difficult to impose at Guohong for a number of reasons. Fairphone was a new entrant to the smartphone market and needed to produce a unique phone, which resulted in a number of adjustments to Guohong's original product design and production process. At the same time, the initial production volume of FP1 was rather low by industry standards. This limited the bargaining power of Fairphone over Guohong with respect to wage increases. The alternative would have been to raise the retail price of FP1. Yet, Fairphone did not opt to accommodate a fair wage for workers at its Chinese contract manufacturing plant.

Yet, Fairphone aimed to support stable employment at Guohong by coordinating the purchasing policy. To this end, Fairphone required its customers to pay and order upfront, which allowed precise forecasting of production volumes at Guohong. This practice is unique in the context of the smartphone industry. It avoids highly fluctuating or last-minute orders. Fairphone's on-site project manager at Guohong said that 'forecastable production planning is very important for us, since it enables ongoing employment. We actually gave the firm [Guohong] a pretty stable forecast four months before production.'

A sudden spike in orders during busy seasons, as well as fluctuations in the volume of production, would require Guohong either to hire short-term workers or to increase overtime at the factory. Chinese law nominally mandates that working hours should not exceed 49 hours a week, but this legislation is rarely met in the Chinese manufacturing industry. Fairphone requested Guohong not to ask factory workers to work more than 60 hours a week. This was considered a realistic target given that the average hours for factory workers in Chinese manufacturing often exceeds 70 a week. Nevertheless, workers resisted the 60-hour cap because overtime pay actually provided them with an additional income. To handle this conflict of interests between Fairphone and Guohong's workers, Fairphone offered an alternative payment incentive, which helped the workers improve their productivity. As Fairphone's on-site project manager at Guohong explained:

When we put the harsh request of not working over 60 hours, many of the workers weren't happy with our requirement, so we made an agreement with the management team to ensure that if the workers are able to deliver our daily [production] targets at the required quality standard, we can provide an incentive to motivate their good work while working the required hours.

Fairphone also envisaged that excessive overtime at Guohong could be reduced by improving production planning and inventory management. To this end, Fairphone arranged for a Hong-Kong based manufacturing/process consulting firm, Concentric Consult, to assess Guohong's productivity and identify opportunities for improvement. Alongside Concentric's support programme, production processes at Guohong were tightly scrutinized by Fairphone's on-site manager, who described her tasks as follows:

When we are doing production planning, we want to help you to see how we can plan the production, not just to make as many products as possible in one day, but we also want to see how we can better use workers' time and ensure that we do not create excessive overtime when it is not necessary.

Concentric Consult also provided hands-on support to help Guohong achieve a more efficient operation. A manager at Concentric Consult explained: 'Guohong lacked the capability to do proper quality inspections, because they never had been required to secure quality management on an international level. So, starting with the basics and then moving through the process in the production line, we introduced several procedures like self-checks and cross-checks.' However, Guohong's capability as a contract manufacturer appears to have some limitations, as the following comment by the same manager shows:

Technically speaking, Guohong was not an outstanding manufacturer. I think there was a level of willingness to collaborate with the boss [Fairphone], which is why Fairphone engaged with them [Guohong] in the first place. But ... the factory had really a kind of a low-level of capability ... not operating at the level required for international standard products.

Although having a positive social impact remains at the centre of Fairphone's business model, the decision to select Guohong as the contract manufacturer for the production of FP1 was taken by balancing different factors, including technological/ production capabilities, CSR management, and pricing, as the following statement by a Fairphone impact and development manager demonstrates: 'It is a bit of a combination. In negotiations, the pricing is not our main priority. Sometimes, we would rather have the WWF and then have a lower margin. In the end, we really want to make sure that social and environmental behaviour fits in a normal business case.'

#### Constraints in cooperative CSR

Despite Fairphone's investment in social upgrading at Guohong via various cooperative elements of CSR practice as outlined above, for the start of FP2 as the second generation of smartphones produced by Fairphone, a decision was taken to replace Guohong as the contract manufacturer with Hi-P. This was a radical and perhaps unexpected decision, which suggests that some major obstacles might have hindered the continuation of the relationship. The case material points to three constraints in promoting social upgrading through cooperative CSR.

First, regarding the supplier's technological/production capabilities, the Fairphone manager learned that although Guohong was technically acceptable to start with, it became apparent that, when Fairphone began developing the more sophisticated model FP2 to meet the needs of a wider customer base, the supplier's capability was not high enough. As Fairphone's impact and development manager explained:

With Guohong – the assembler of FP1, when we started, they had technological capabilities that we didn't have. They could produce phones. But for FP2, we already had different product requirements, because we wanted to have our own design, with our own architecture, and they could not deliver that type of model. For the assembling of the FP2, we went to another supplier.

Since, with the FP2, the marketing and design of smartphones became Fairphone's main business function, it was inevitable that it would attach importance to technical and production capabilities in its selection of suppliers. Fairphone chose two new suppliers, Hi-P and AT&S, for its new model FP2. Hi-P functioned as the new contract manufacturer for production in China. With headquarters in Singapore, it is a leading consumer electronics manufacturer with 15,000 employees in 21 locations worldwide. AT&S, which acts as a platform leader, is an Austria-based global supplier of highend printed circuit boards (PCBs); it operates in China and India and employs more than 9000 workers. Both suppliers had other previous and prominent international clients in the smartphone industry and higher production and technological capabilities compared with Guohong. Fairphone's restructuring of the GVC for FP2 required efficient collaboration between Hi-P as contract manufacturer and AT&S as platform leader, which an AT&S senior account engineer described as rather smooth: 'we receive design files and specifications [made by Fairphone] from Hi-P and deliver the product accordingly. All relevant communication happens with Hi-P.

Second, as a social enterprise focusing on the production of 'ethical' smartphones, the supplier's ability to deliver the CSR norms is crucial for Fairphone. This could be identified as another reason why Fairphone replaced Guohong with Hi-P as the contract manufacturer. Fairphone's project manager who acted as the on-site manager at Guohong commented on this aspect. 'We helped [Guohong] reduce working hours and hoped to achieve better worker satisfaction at the factories ... but they sometimes had difficulties conceptualizing and seeing how it could be done in a practical way.'

By contrast, Fairphone's project manager emphasized how different Hi-P was from Guohong in terms of CSR, for example its enabling rights: 'Hi-P is a more established company compared with Guohong. It is an international company that has a wellplanned union structure in place. It also has a whole worker representative system based on the requirements of Chinese law. Hi-P has all the system inside already.' In

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fact, Hi-P has a more developed trade union system, which offers open membership to both regular and agency workers. Similarly, AT&S had also established its CSR policy even before it started in the Fairphone business. The senior engineer at AT&S described the motive for doing business with Fairphone in view of CSR: 'AT&S has a strong focus on CSR and sustainability already; that is why the paths of AT&S [and Fairphone] were crossing and both decided to move forward together. Both [Fairphone and AT&S] are sharing the same values and goals.'

Third, Fairphone pointed out its limited bargaining power and control over its lower-tier suppliers in the value chain as a constraint to long-term cooperation. In the smartphone value chain, the contract manufacturer has a crucial role in the lead firm's strategic access to the supply chain, not only in production management but also in terms of CSR. However, Guohong inhibited Fairphone's attempt to improve its value chain from a technological and social point of view by including other potential subsuppliers outside the existing value chain. The impact and development manager at Fairphone commented on the decision to change the contract manufacturer:

We go quite far in improving things together and developing capabilities at suppliers – social and technological things. Still, at some point we have to change the supplier like with Guohong. They said they can only produce this phone [FP1] and we said having access to the supply chain for us is so strategic that we have to change the supplier.

#### She added;

It turned out that their [Guohong's] stock management was horrible, so they always had delays with incoming components ... then at some point we decided that we cannot build the Fairphone 2 with that company because it prevents us from getting deeper access to the supply chain. ... I think with Hi-P what we now also see is that there is more access to the supply chain, there is also much more responsibility in the supply chain management, and we preliminary did a quite shitty job.

It is critical for a small lead firm like Fairphone to have better access to a wider range of suppliers and to develop design capabilities to coordinate suppliers and subsuppliers. The CEO of Fairphone described the strategic action of removing Guohong as follows:

This [removing Guohong] was related to our ambition to open the supply chain. We realized that to open the supply chain, we need to own the design of the phone. However, Guohong, the production partner of the FP1, was not able to build the phone based on our original design.

In addition, he expressed the need for a strategic approach to its value chain management both socially and economically:

A lot of things are changing. First, our new partner Hi-P selects most of the sub-suppliers. However, we also have more power to choose some partners and include them in the VC. We, for example, included AT&S, the supplier of the PCB into the supply chain. We do more research about potential partners and check their components as well as social conditions, etc. as potential new partners.

With FP2, Fairphone was now in a position to choose from a set of alternative contract manufacturers, despite its ambitious requirements in terms of social aspects. It turned out that Guohong was not spared such competitive forces, despite the considerable investment by both the contract manufacturer and the lead firm in production capability and social upgrading. The manager of Concentric Consult hints at this:

Unfortunately, it [Guohong] didn't survive the relationship with Fairphone. ... However, between the beginning and the end [of the production of FP1], we certainly made some impact on its capability. It is just that its [Guohong's] long-term business plan was probably not set out to be successful or achievable. There is just too much competition.

#### **Discussion and conclusions**

The purpose of this article has been to improve our understanding of how a lead firm's CSR approach to its suppliers can be implemented and how this can influence a GVC supplier's social upgrading. Our case study illustrated these issues by focusing on how Fairphone improved enabling rights and measurable standards at Guohong at its first-tier contract manufacturer in the production of its first-generation smartphone (FP1). While on the one hand, the case documents a rare example of cooperative elements in a lead firm's approach to CSR in a GVC, with positive effects not only on measurable standards but also on enabling rights, on the other hand it also points to constraints to this approach, which might eventually cause the exclusion of the supplier from the GVC, despite both parties having invested heavily in upgrading.

Our findings show the effects of a lead firm's cooperative approach to CSR in its relationship with its contract manufacturer in the smartphone industry. The value proposition of Fairphone as a social enterprise and its unique business model, which emphasizes transparency and social impact, can be identified as the foundation for its strong commitment towards fostering social upgrading among its suppliers. Fairphone as a buyer firm invested in Guohong's human resource management, which arguably generated opportunities to upgrade the process and/or the product and also provided the incentives needed for social upgrading as described in earlier research (Locke et al. 2009). This includes monetary incentives to raise productivity and/or the quality of production, while at the same time keeping worker's overtime under control. Furthermore, Fairphone implemented purchasing policies that avoided spikes in production and supported stable employment at its contract manufacturer. Yet, these policies did

not result in higher wages for the suppliers' workers, as the existing research suggests (Barrientos 2013; Reinecke 2010).

Fairphone implemented a novel instrument, namely a welfare fund financed by equal contributions from the lead firm and the supplier but managed by the workers' representatives at the supplier. The workers' representatives decided to release the funds as one-off bonuses to workers, so that, indirectly, the welfare fund had a positive effect on workers' pay. The design of the workers' welfare fund not only improved measurable standards but also, and importantly, promoted collective bargaining among workers in an institutional environment characterized by the supplier's dysfunctional trade union systems. It is noteworthy that Fairphone emphasized that social benefits (such as limits to overtime, health and safety regulations, or one-off bonuses) were applied to all workers and not only to those in the production of FP1. The lead firm was thus able to negotiate social benefits for workers based on the principle of non-discrimination. This constitutes another important relational factor in enabling rights apart from freedom of association and collective bargaining (Barrientos et al. 2011; Rossi 2013).

The earlier literature suggests that, in setting independent standards for suppliers, local economic and social actors should be included in the CSR monitoring process (Lund-Thomsen and Lindgreen 2014). In fact, rather than rely on occasional factory visits to monitor compliance, Fairphone appointed its own on-site manager to work with its contract manufacturer during the production phase of FP1, but it also used a local agency to implement social assessments. This agency not only made suggestions on how to address the identified deficiency, but also trained the contract manufacturer's senior management. On its advice, a workers committee was installed to monitor health and safety issues on a daily basis. This is an example of how information gained from monitoring by third parties can be effectively used to determine direct interventions (Locke et al. 2007). More generally, the case shows that the involvement of local external actors, along with Fairphone's commitment and worker participation in decision-making is an indication that such multi-stakeholder processes have a positive impact on social upgrading (Dolan and Opondo 2005; Fichter et al. 2011; Locke et al. 2009; O'Rourke 2006; Polaski 2006).

The case also highlighted three constraints on a lead firm achieving social upgrading by adopting a cooperative approach to CSR. First, the supplier needs to have, or to develop, enough productive and technological capacity to maintain its relationship with the lead firm and thus to accomplish social upgrading. This draws attention to existing research that documents a positive relationship between economic and social upgrading (Nadvi 2004; Pipkin 2011). However, since progress on measurable standards and enabling rights is linked to a lead firm's cooperative approach and strategic focus on CSR, we cannot consider social upgrading merely as a by-product of economic upgrading (Barrientos et al. 2011; Milberg and Winker 2011). Second, a lack of production and technological capability is particularly detrimental when the market for suppliers' services is highly competitive. This creates a weaker bargaining position for the supplier and allows the lead firm to switch suppliers more easily. Third, to implement social improvements via cooperative CSR, a lead firm needs access to the whole supply chain. As the case revealed, a lead firm might use new design capability to reduce its dependency on a specific contract manufacturer and to open up the supply chain according to its own technological and social preferences. This points to the importance of a lead firm's bargaining power over first tier and subsequent suppliers as a decisive factor for implementing a cooperative approach towards CSR in GVCs.

Recent literature critically assessing possible results of cooperative CSR on social upgrading in GVCs emphasizes that the effects of increased measurable standards and enabling rights will depend largely on the suppliers' existing capabilities and positions in a given GVC (Gereffi and Lee 2016). We add to this research by arguing that poor productive and technological capabilities on the part of suppliers, a highly competitive environment for supplier services, limited strategic access to the supply chain and weak bargaining power by the lead firm may impair the effects of social upgrading. Yet, the case also shows that a cooperative approach to CSR can be operationalized in a manner that fosters progress on measurable standards as well as relational factors of enabling rights.

Our research has a number of limitations. First, the time frame of the case analysis is rather short. The study focused basically on the relationship between Fairphone and Guohong as its initial contract manufacturer of FP1 as well as the defining moment when Fairphone replaced Guohong when moving to the second generation of its smartphone. Therefore, we did not observe to what extent progress on measurable standards and enabling rights at Guohong could be maintained after the exit from Fairphones' GVC. Second, we have no primary data from interviews with blue-colour workers. Instead, we used secondary sources as video clips to include their perspective for selected issues (such as WWF). However, we lack information on any biases due to the context in which these videos were produced. Our research strategy focused on personnel at the management-level, so we did not directly interview factory workers at Guohong. However, follow-up research could take account of this relevant perspective more directly. Third, we cannot fully exclude a bias in the positions of external stakeholders like TAOS and Concentric Consult, since the modalities of compensation by Fairphone are not know and could be fully or partially commission-based. This could introduce a bias with regard to their evidence on progress on various dimensions of social upgrading. Fourth, we had limited access to Hi-P, which took over Guohong's position, since Fairphone was still negotiating the collaboration with Hi-P, including elements related to social benefits. Finally, since Fairphone is a social enterprise with a 'social impact' driven business model rather than a profit-seeking one, Fairphone's approach towards CSR may not be applicable for other private firms. Nevertheless, it should be noted that Fairphone is not a charity, and it needs to be commercially viable to remain in the market.

We hope that our choice of Fairphone and its specific business model for the study may pave the way for further research on the effects of CSR practices by lead firms on social upgrading of GVC participants. Indeed, social upgrading and CSR are closely intertwined, and both are essential parts of a comprehensive GVC analysis. Future research on what conditions warrant sustainable CSR practices will surely develop our understanding of social upgrading in a GVC and a wider context.

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#### Note

1. At the time of the fieldwork for this study, the minimum wage in the Chongqing municipality, where Guohong is located, was 1150 or 1250 yuan per month depending on the area at that time (Yao and Rosettani 2015).

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